

0.8	3.55	2.7	-0.85	-23.94
1	3.62	2.54	-1.08	-29.83

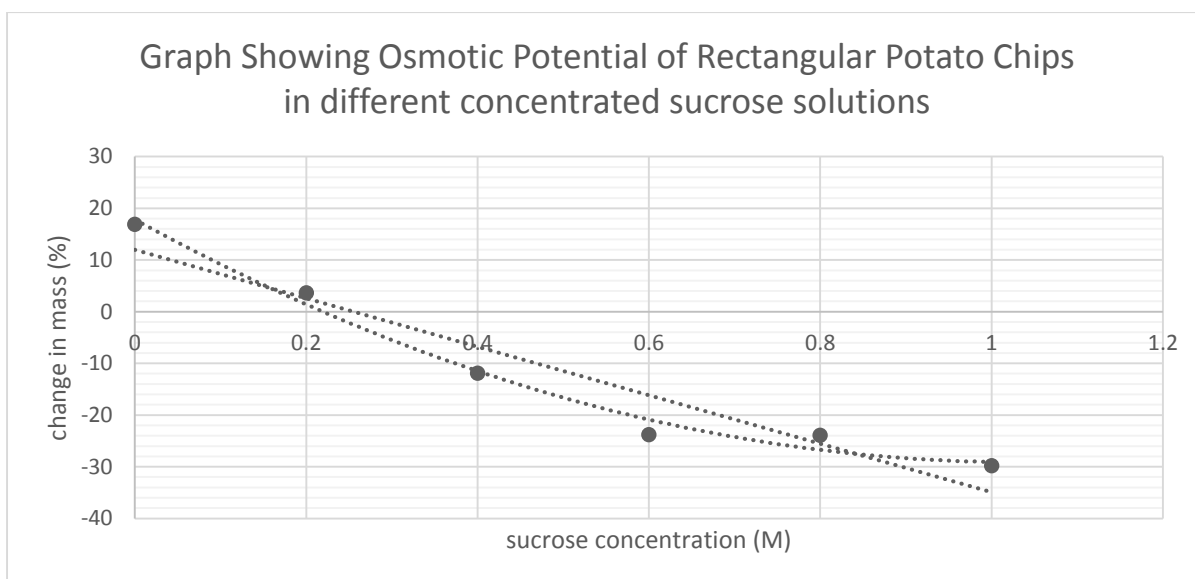


Figure 1: Graph showing the changes in mass as a percentage of potato chips in different concentrated sucrose solutions over 24 hours.

Discussion

The graph shows that the potatoes exposed to the lower concentrations of sucrose gained weight due to the net movement of free water (solvent) molecules moving in by osmosis. This occurred because of the imbalance of concentrations between the sucrose solution and the water inside the rectangular chips. The lower concentrations of sucrose had a higher net amount of water than the water inside the potato chips, to achieve equilibrium and for both inside and out of the potato chips to be isotonic to one another, the solvent in the sucrose solution moved into the potato chip in order for equilibrium to be achieved.

The graph shows that potatoes exposed to the higher concentrations of sucrose lost weight due to the net movement of free water (solvent) molecules moving out by osmosis. This has occurred because of the imbalance of solvent between the higher concentration of sucrose and the water suspended in the potato chips, in order for both the solution and the potato chips to achieve equilibrium the potato chip releases some of its intracellular water to the solution to gain an isotonic balance of solvent in both the potato chips and the solution.

There were a numerous amount of Controlled variables that were needed in order for an accurate practical to take place. These controlled variables included: Concentration, Position, Type, Amount of each solution.

The concentration of each sucrose solution was able to be regulated and maintained the same throughout the osmotic reaction. After 24 hours each individual solution still maintained the same concentration as it did initially, resulting in a control of concentration becoming apparent from the start of the practical. This controlled variable allowed for an accurate measurement of the osmotic